



Executive Summary

□ STAR Run 9 200 GeV status and plans

○ 200GeV program: Highest priority

□ Physics: Precision inclusive measurements / Di-jet measurements : Δg

□ Assumptions: Need: $P \sim 0.6$ / $L_{\text{delivered}} \sim 100\text{pb}^{-1}$ $L_{\text{recorded}} \sim 50\text{pb}^{-1}$

□ FOM $\sim 6.5\text{pb}^{-1}$

Highest
PAC
recommendation!

□ Physics: p2pp program needs ~ 1 week including setup

□ Final decision to request pp2pp running during last week will be made by the end of May depending on performance of 200GeV longitudinal program

○ Setup of 200GeV production trigger is proceeding very well

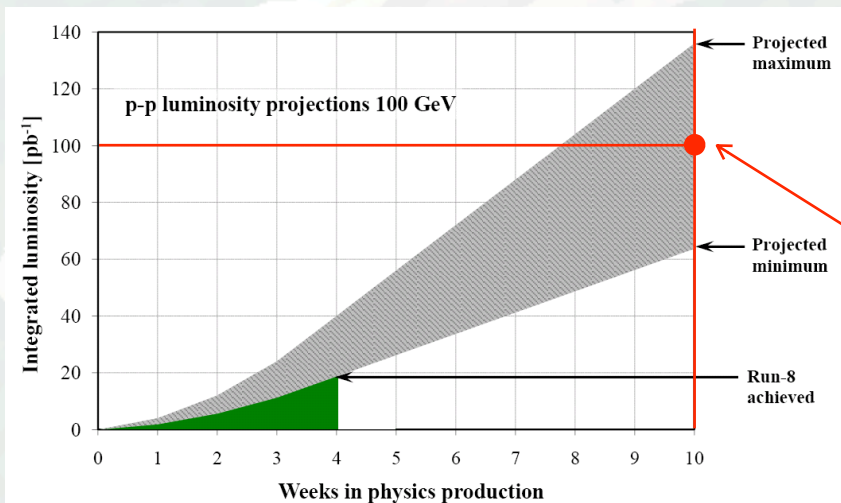
○ Observed ZDC-SMD asymmetry during vertical polarized stores over weekend at 200GeV / Smaller analyzing power than at 500GeV

○ Scaler system almost ready : BBC will be prime local polarimeter \Rightarrow Need one vertical polarization store!

○ Access request (\sim this afternoon prior to 109 X 109 store for about 20min.) to fix some problems related to BEMC / MB trigger / FMS

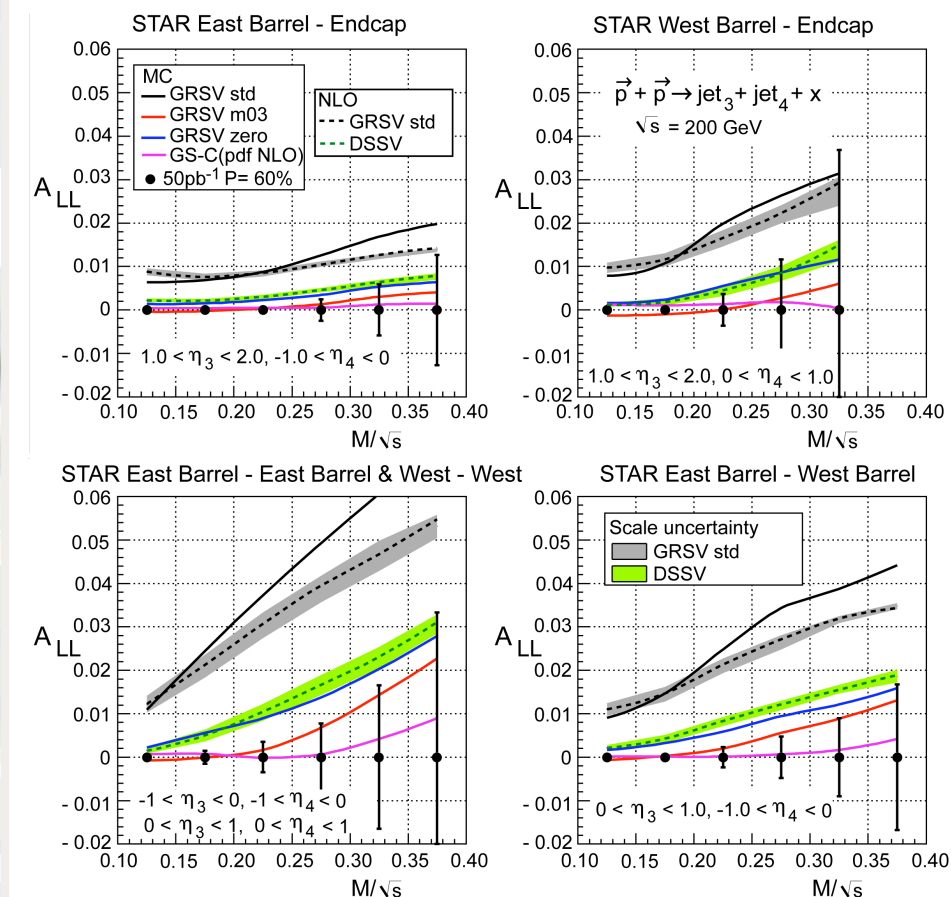
STAR Run 9 200GeV program (Gluon polarization)

Projected performance / assumptions - STAR 200GeV program



Reach
BUR goal
in 10
weeks!

- Precision inclusive measurements, in particular inclusive jet production
- Di-Jet production - Probe x dependence of $\Delta g(x)$
- Substantial improvement of gluon polarization reflected in highest PAC recommendation!



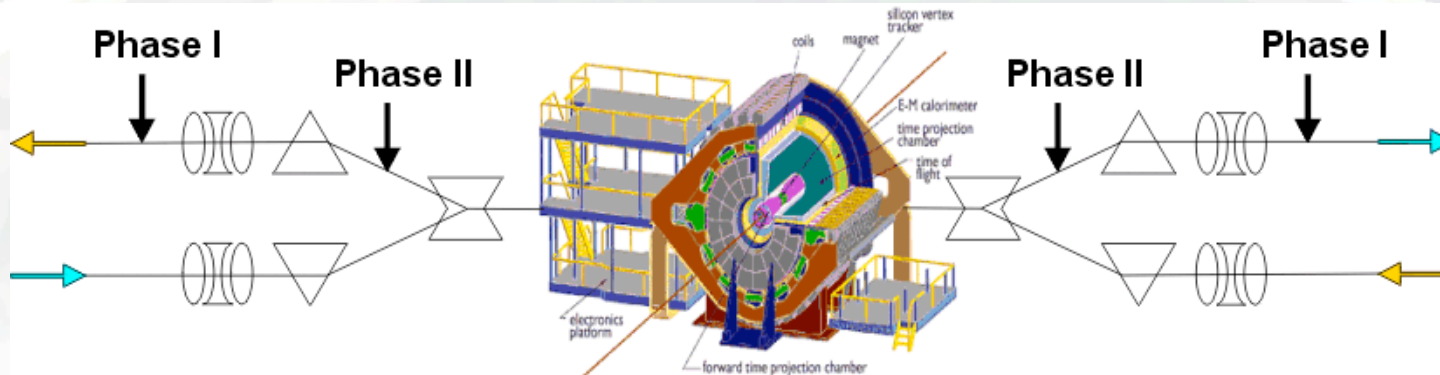
Assumption: $FOM = P^4 \cdot L \sim 6.5 \text{ pb}^{-1}$

$P \sim 0.6$ / $L_{\text{delivered}} \sim 100 \text{ pb}^{-1}$ $L_{\text{recorded}} \sim 50 \text{ pb}^{-1}$

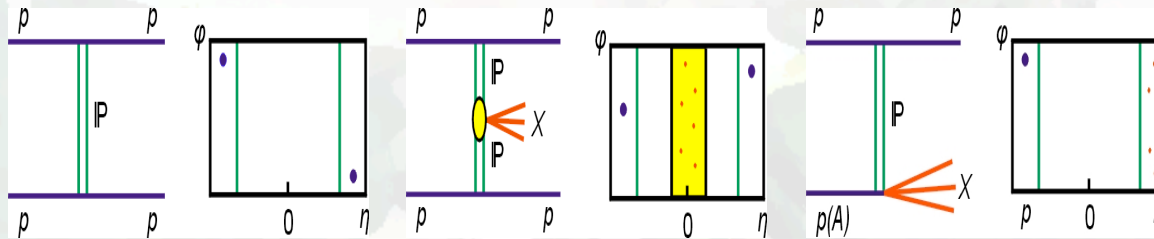
NOTE: $(P=0.50/P=0.60)^4 \sim 2$ / $(P=0.55/P=0.60)^4 \sim 1.4$

STAR Run 9 200GeV program (pp2pp)

- Unique opportunity of diffractive physics in STAR : pp2pp



- Physics: Elastic scattering / Central production / Single diffraction dissociation



- Need to reach small t values to measure small masses of interest \Rightarrow large $\beta^* = 20\text{m}$ required, special optics and beam scraping needed
- pp2pp setup moved to STAR and integrated (Run 8) / Commissioning of trigger and Si detectors ongoing / Need: Dedicated run of 4-5 days (incl. 2 days setup)

Vertical Roman Pots

